

Recent IBM patents

The following patents were recently issued by the countries in which the inventions were made. For U.S. patents, titles and names supplied to us by the U.S. Patent Office are reproduced exactly as they appear on the original published patent.

Federal Republic of Germany

2,758,146	A. Blum, H. R. Geng, J. Hajdu, S. Richter, H. Chilinski, U. Wille, B. D. Rust, K. J. Getzlaff, and S. E. Neuber	Control Circuit in the Instruction Unit of an Electronic Digital Computer
3,176,140,208	H. Bohlen, J. Greschner, J. Keyser, W. Kulcke, and G. Kaus	Contact Device for Releasably Connecting Electrical Components
3,176,223,908	G. Trippel and A. Brunsch	Magnetic Record Carrier for Vertical Recording
3,176,238,707	H. Hinkel, E. Max, U. Kuenzel, and J. Schneider	Magnetic Disk Substrate with a Core of Synthetic Material
3,276,517,708	E. Lennemann and W. Ruppert	Opto-Electronic Scanning Apparatus with Rotary Plate Scanning Element
3,370,699,908	H. Bohlen, J. Greschner, P. Nemiz, H. Engelke, P. Vettiger, and E. Bretscher	Method of Transferring a Pattern into a Radiation-Sensitive Layer
3,371,592,008	F. Schwerdt and D. Baerhle	Method of Making Printed Circuits with One Conductor Plane
3,371,734,608	J. Greschner, H. J. Trumpp, and F. Schwerdt	Adhesive Metal Layers on Substrates of Synthetic Material
3,371,960,808	R. Brosch, F. C. Wernicke, E. Klink, and J. Keinert	Phase Splitter with Latch

France

82,903	M. Lechaczynski, A. Pauporte, P. Thery, and R. Walter	Control Unit Adapted to Be Connected to Two Different Speed Storages
109,996	F. Delaporte, G. Lesbesnerais, and J. P. Pantani	Monolithic Autobiased Resistor Structure and Application Thereof to Interface Circuits
111,611	S. Bourgeois, J. F. Carle, H. Lochon, and J. P. Troitin	Electron Gun Equipment for Vacuum Deposition
112,951	G. Lebesnerais, G. Boudon, and P. Mollier	Chip to Chip Information Bit Transmission Process and Device
112,953	F. Caron	Dynamical Operating Rate Allocation Process in a Multiplex Communication System
130,260	J. C. Froment, M. Verhaeghe, and J. P. Pantani	Interface Module for Telephone Lines

Sweden

50,234	A. Edlund	Character Recognition Employing Compressed Image Data
132,616	G. E. Ekstrom and L. Szonyi	System for Automatic Calibration of a Robot
136,413	L. Szonyi	System for Automatic Calibration of a Robot

Switzerland

112,401	D. W. Pohl	Optical Near-Field Scanning Microscope
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United Kingdom

- 82,225 C. J. Harris, P. J. McConnell,
M. L. Norton, and M. E. Getz
- 112,945 D. H. Kirman, I. Golledge, A. C. Lowe, and
J. C. Lowe
- 112,946 J. C. Wood and B. F. Dowden

Business Systems

- Liquid Filled Electro-Optic Display Cell with Diaphragm Seal
- Hermetic Electro-Optic Display Cell

United States

- 4,655,542 R. B. Dube
- 4,655,610 M. Y. Al-Jaroudi
- 4,655,833 W. J. Amelio, P. G. Bartolotta,
V. Markovich, and R. E. Parsons
- 4,656,050 C. J. Araps, S. M. Kandetzke, and
M. A. Takacs
- 4,656,367 E. F. Culican, P. E. Pritzlaff, Jr.,
H. Schettler, and K. A. Van Goor
- 4,656,417 E. S. Kirkpatrick, E. P. Kronstadt,
R. K. Montoye, and W. W. Wilcke
- 4,656,435 J.-C. Czarniak and R. Diot
- 4,656,532 R. Greenberg and D. A. Styczinski
- 4,656,578 H. Chilinski, K. J. Getzlaff, J. Hajdu, and
S. Richter
- 4,656,580 R. B. Hitchcock, Sr. and M. C. Graf
- 4,656,582 G. J. Chaitin, M. E. Hopkins,
P. W. Markstein, and H. S. Warren, Jr.
- 4,656,583 M. A. Auslander, J. Cocke, and
P. W. Markstein
- 4,656,602 P. T. Berkland, A. W. Heath, and
G. K. Waddell
- 4,656,643 M. Geneste and C. Jacquart
- 4,656,664 K. L. Anderson and F. C. Mintzer
- 4,656,665 W. B. Pennebaker
- 4,656,729 C. T. Kroll, Jr. and G. B. Stephens
- 4,657,824 J. K. Howard
- 4,657,845 J. M. J. Frechet, H. Ito, S. A. MacDonald,
and C. G. Willson
- 4,658,350 L. C. Eggebrecht and D. A. Kummer
- 4,658,430 K. L. Anderson and J. L. Mitchell
- 4,659,220 J. J. Bronte, R. C. Herbert, and
H. A. Khoury
- 4,659,406 S. S. N. Reddy
- 4,659,423 K.-M. Kim, P. Smetana, and
W. A. Westdorp
- 4,659,425 E. A. Eggers and W. J. Summa
- 4,659,585 Kenneth L. Elias, S. R. Martin, and
W. J. Slattery
- 4,659,650 H. Moritz and G. Pfeiffer
- 4,660,117 P. D. Carey, S. J. Cutts, J. S. Heath,
D. E. White, and D. A. Evans
- 4,660,144 J. R. Walsh
- 4,660,169 K. S. Norgren and R. E. Vogelsberg
- 4,660,171 V. S. Moore, W. R. Kraft, and
J. C. Rhodes, Jr.
- 4,661,004 S. L. Applegate and J. A. Craft
- 4,661,216 N. C. Anderson and R. B. Chesnutt
- 4,661,658 S. M. Matyas
- 4,661,729 J. L. Hames, C. M. Lacey, R. R. Neuman,
and J. R. Reidenbach
- 4,661,810 C. S. Himelstein and J. S. Wang
- 4,661,832 J. S. Lechaton, S. D. Malaviya,
D. J. Schepis, and G. R. Srinivasan
- 4,661,882 D. R. Presley
- 4,661,901 G. A. Veneski
- 4,661,955 D. L. Arlington, C.-L. Chen, and
E. K. Evans

Optical Signal Processing Arrangements

- Vacuum Impregnation of Sintered Materials with Dry Lubricant
- Electroless Copper Plating Bath and Improved Stability

- Method of Producing Electronic Components Utilizing Cured Vinyl and/or
Acetylene Terminated Copolymers
- Speed Up of Up-Going Transition of TTL or DTL Circuits Under High
Capacitive Load
- Test Circuit for Differential Cascode Voltage Switch

- Constant Biasing Circuit and Operational Amplifier Using Said Circuit
- Sector Identification Method for Hard Sected Hard Files
- Device in the Instruction Unit of a Pipeline Processor for Instruction
Interruption and Repetition
- Logic Simulation Machine
- Generating Storage Reference Instructions in an Optimizing Compiler

- Method for Improving Global Common Subexpression Elimination and
Code Motion in an Optimizing Compiler
- Method of Control Placement of Image of Document to Be Printed on
Paper in an Interactive Text Processing System
- Line Interface Circuit
- Method for Reducing a Binary Image
- Thresholding Technique for Graphics Images Using Histogram Analysis
- Dual Electron Injection Structure and Process with Self-Limiting Oxidation
Barrier
- Vertical Magnetic Recording Medium with an Intermetallic Compound
Nucleating Layer
- Positive Tone Oxygen Plasma Developable Photoresist

- Extended Addressing Apparatus and Method for Direct Storage Access
Devices
- System for Rotating Binary Images
- Optical Inspection System for Semiconductor Wafers

- Method of Bonding to Ceramic and Glass
- Semiconductor Crystal Growth Via Variable Melt Rotation

- Continuous Process for the Manufacture of Printed Circuit Boards
- Planarized Ceramic Substrates

- Production of a Lift-Off Mask and Its Application
- Disk Cartridge Having a Flexible Disk Storage Medium and a Disk File
Including Such a Cartridge
- Adjunct Machine
- Access Control to a Shared Resource in an Asynchronous System
- Apparatus and Method Using a Programmable Logic Array for Decoding
an Operation Code and Providing a Plurality of Sequential Output States
- Ribbon Feed Tension Mechanism
- Electrodepositing Conife Alloys for Thin Film Heads
- Offline PIN Validation with DES
- Voice Coil Motor Magnet Assembly

- Method for Interactive Rotation of Displayed Graphic Objects
- Total Dielectric Isolation for Integrated Circuits

- Power Supply/Sink for Use with Switched Inductive Loads
- Microprocessor Control System Utilizing Overlapped Programmable Logic
Arrays
- Extended Error Correction for Package Error Correction Codes

4,662,503	A. H. Lycke	Docking and Locking Device for a Pallet in a Robot or Like System
4,662,719	D. J. DiMaria and H. P. Wolf	Liquid Crystal Display and Method for Production
4,662,963	K. J. Varker	Method of Manufacturing High Density Encapsulated Wire Circuit Board
4,663,186	R. F. Indyk, F. J. Lamelas, and M. O. Neisser	Screenable Paste for Use as a Barrier Layer on a Substrate During Maskless Cladding
4,663,191	K. Choi and S. Roberts	Silicide Process for Forming Low Sheet Resistance Doped Silicon Junctions
4,663,615	I. H. Hernandez, R. E. McCaskill, and B. A. Barker	Document Creation
4,663,616	C. S. Christensen	Attachment of Lines to Object in Interactive Draw Graphics
4,663,617	D. A. Stockwell	Graphics Image Relocation for Display Viewporting and Pel Scrolling
4,663,620	W. J. Paul and N. J. Pippenger	Modified Crossbar Switch Operation with Fixed Priority Conflict Resolution and Apparatus for Performing Same
4,663,675	G. D. Jones, Jr. and L. D. Larsen	Apparatus and Method for Digital Speech Filing and Retrieval
4,663,676	O. Voegeli	Return to Zero Vertical Magnetic Recording System
4,663,685	C. H. Tsang	Magnetoresistive Read Transducer Having Patterned Longitudinal Bias
4,663,708	D. M. Taub	Synchronization Mechanism for a Multiprocessor System
4,663,729	R. E. Matick, D. T. Ling, and F. H. Dill	Display Architecture Having Variable Data Width
4,663,742	J. E. Andersen, R. L. Barry, K. H. Christie, and D. J. Shea	Directory Memory System Having Simultaneous Write, Compare and Bypass Capabilities
4,663,832	C. G. Jambotkar	Method for Improving the Planarity and Passivation in a Semiconductor Isolation Trench Arrangement
4,664,543	A. Bohg, H. D. Matthaei, and V. Zimmermann	Device for Monitoring and Compensating for Changes in the Flight Time of the Print Hammers of Impact Printers
4,664,769	J. J. Cuomo and C. R. Guarnieri	Photoelectric Enhanced Plasma Glow Discharge System and Method Including Radiation Means
4,665,006	K. G. Sachdev, R. W. Kwong, M. M. Khojasteh, and H. S. Sachdev	Positive Resist System Having High Resistance to Oxygen Reactive Ion Etching
4,665,007	N. R. Cervak, S. K. Fibley, G. R. Goth, and M. A. Takacs	Planarization Process for Organic Filling of Deep Trenches
4,665,010	H. H. Herd, L. Jacobowitz, and J. M. Shaw	Method of Fabricating Photopolymer Isolation Trenches in the Surface of a Semiconductor Wafer
4,665,313	O. C. Wells	Apparatus and Method for Displaying Hole-Electron Pair Distributions Induced by Electron Bombardment
4,665,415	L. Esaki, L. L. Chang, and W.-I. Wang	Semiconductor Device with Hole Conduction Via Strained Lattice
4,665,417	C. H. Lam	Non-Volatile Dynamic Random Access Memory Cell
4,665,441	Y. Sakaue and K. Sugimoto	Method and System for Line-Thinning in Electronic Image Processing
4,665,517	A. X. Widmer	Method of Coding to Minimize Delay at a Communication Node
4,665,520	R. C. Strom and S. Yemini	Optimistic Recovery in a Distributed Processing System
4,665,787	S. E. Arnold and M. E. Nitschke	Cutting Device for Paper and Foil Webs, Particularly for Printers, Plotters, Copiers and Similar Machines
4,666,315	R. A. Scranton	Planar and Cylindrical Oscillating Pneumatodynamic Bearings
4,666,556	I. G. Fulton, J. S. Makris, V. R. Nastasi, A. F. Scaduto, and A. C. Shartel	Trench Sidewall Isolation by Polysilicon Oxidation
4,666,858	R. H. Magnuson and S. A. Schubert	Determination of Amount of Anionic Material in a Liquid Sample
4,667,117	G. B. Nebgen and R. Pelc	Self-Timing and Self-Compensating Print Wire Actuator Driver
4,667,182	A. S. Murphy	Stylus or Pen with Tactile Response to User
4,667,305	F. H. Dill, D. T. Ling, R. E. Matick, and D. J. McBride	Circuits for Accessing a Variable Width Data Bus with a Variable Width Data Field
4,667,395	D. C. Ahlgren, W. H. Ma, and M. Revitz	Method for Passivating an Undercut in Semiconductor Device Preparation
4,668,865	J. K. Gimzewski and D. W. Pohl	Scanning Tunneling Microscope
4,668,879	A. H. Dansky, M. M. F. Savalle, and H. Schettler	Dotted "Or" Function for Current Controlled Gates
4,668,913	A. W. Vinal	Constant Flux Magneto Resistive Magnetic Reluctance Sensing Apparatus
4,668,995	Y.-H. Chen, F. C. Mintzer, and K. S. Pennington	System for Reproducing Mixed Images
4,669,013	R. A. Scranton, D. A. Thompson, and T. K. Worthington	Multiple Coils for Reduction of Stray Magnetic Fields in Disk File Actuators
4,669,056	D. W. Waldecker and C. G. Wright	Data Processing System with a Plurality of Processors Accessing a Common Bus Interleaved Storage
4,669,076	W. E. Broom, M. Henry, and W. J. Schaffer	Optical Disk Drive Apparatus with Means for Accurate Disk Positioning
4,669,079	A. Blum	Method and Apparatus for Bus Arbitration in a Data Processing System
4,669,178	E. D. Johnson	Process for Forming a Self-Aligned Low Resistance Path in Semiconductor Devices
4,670,325	P. Bakos, R. E. Darrow, N. P. Franchak, and J. Funari	Structure Containing a Layer Consisting of a Polyimide and an Organic Filler and Method for Producing Such a Structure
4,670,669	P. E. Cottrell, W. J. Craig, and R. R. Troutman	Charge Pumping Structure for a Substrate Bias Generator
4,670,710	J. G. Beha, R. W. Dreyfus, and G. W. Rubloff	Noncontact Full-Line Dynamic AC Tester for Integrated Circuits

4,670,732	M. A. Church	Electrical Lapping Guide Resistor
4,670,804	R. Kant, D. R. McFee, T. F. Roth, and R. K. Wilmer	Expandable Suspension for Read/Write Head in a Disk File
4,670,842	M. F. Metwaly	Method and System for the Generation of Arabic Script
4,670,880	H. Jitsukawa and T. Maruyama	Method of Error Detection and Correction by Majority
4,671,686	J. K. Howes, K. G. Kluvo, D. K. Rex, and G. M. White	Printer Having Removable Paper Feed Module
4,671,849	L. Chen and G. S. Mathad	Method for Control of Etch Profile
4,671,851	K. D. Beyer, J. S. Makris, E. Mendel, K. A. Nummy, S. Ogura, J. Riseman, and N. Rovedo	Method for Removing Protuberances at the Surface of a Semiconductor Wafer Using a Chem-Mech Polishing Technique
4,671,928	L. W. Herron, R. N. Master, and R. W. Nufer	Method of Controlling the Sintering of Metal Particles
4,672,177	M. R. Headrick	Environmental Sensor Control of a Heated Fuser
4,672,188	D. K. Cohen	Focus Detector for Optical Apparatus
4,672,303	S. F. Newton	Inductor Current Control Circuit
4,672,368	D. W. Williams	Raster Scan Digital Display System
4,672,423	A. B. Fowler and A. M. Hartstein	Voltage Controlled Resonant Transmission Semiconductor Device
4,672,536	D. Giroir and G. Lacoste	Arbitration Method and Device for Allocating a Shared Resource in a Data Processing System
4,672,539	G. Goertzel	File Compressor
4,672,571	V. R. Bass, V. A. Bonebrake, D. A. Garrison, J. K. Landis, M. S. Neff, R. J. Urquhart, and S. C. Williams	Compound Word Suitability for Spelling Verification
4,672,574	S. K. Baird, D. M. Benignus, D. G. Busch, A. P. Jeffries, T. S. Parker, and R. A. Vossman	Data Communication System with Terminal for Displaying the Coded Stream of Data Being Transmitted
4,672,575	L. K. Stephens	Schematic Building Cursor Character
4,672,579	V. P. Thomas, R. M. P. West, and J. P. Woodley	MTL Storage Cell with Inherent Output Multiplex Capability
4,672,669	A. DesBlache, C. Galand, and R. Vermot-Gauchy	Voice Activity Detection Process and Means for Implementing Said Process
4,672,676	C. J. Linger	Method and Apparatus for Automatically Aligning an Object with Respect to a Reference Pattern
4,672,739	R. W. Churchwell, P. L. Flaitz, and J. N. Humenik	Method for Use in Brazing an Interconnect Pin to a Metallization Pattern Situated on a Brittle Dielectric Substrate
4,673,977	W. K. Stelzenmuller	Method of Spatially Thresholding a Discrete Color Image
4,674,038	D. P. Brelsford, D. D. Cerutti, L. S. Coleman, G. A. Davison, P. H. Dewey, M. C. Enichen, S. T. Hartley, P. A. Malinowski, R. W. Rogers, P. H. Tallman, and L. A. Czak	Recovery of Guest Virtual Machines after Failure of a Host Real Machine
4,674,040	B. A. Barker, I. H. Hernandez, and R. A. McCaskill	Merging of Documents
4,674,042	I. H. Hernandez, B. A. Barker, C. S. Himmelstein, and B. H. Machart	Editing Business Charts
4,674,043	I. H. Hernandez, B. A. Barker, C. S. Himmelstein, and B. H. Machart	Updating Business Chart Data by Editing the Chart
4,674,065	F. R. Lange and W. S. Rosenbaum	System for Detecting and Correcting Contextual Errors in a Text Processing System
4,674,103	P. R. Chevillat, D. G. Maiwald, and G. Ungerboeck	Method and Arrangement for Detecting the Presence of a Training Signal in a Modem Receiver
4,674,442	S. E. Blum	Process and Apparatus for Producing High Purity Oxidation on a Semiconductor Substrate
4,675,072	R. S. Bennett, L. M. Ephrath, G. C. Schwartz, and G. S. Selwyn	Trench Etch Endpoint Detection by LIF
4,675,240	J. R. Weiss	Magnetic Recording Disk Using Silicon Substrate
4,675,559	P. E. Cottrell, J. E. Gersbach, and W. D. Pricer	Differential Circuit Having a High Voltage Switch
4,675,569	C. H. Bowman, J. A. Farringer, R. L. Garwin, L. L. Greene, J. L. Levine, A. W. Miles, and K. H. Vorhees	Touch Screen Mounting Assembly
4,675,650	D. Coppersmith and B. P. Kitchens	Run-Length Limited Code Without DC Level
4,675,665	H. Halliwell	Realtime Tracking of a Movable Cursor
4,675,711	C. S. Harder, H. P. Wolf, W. Baechtold, P. L. Gueret, and A. Baratoff	Low Temperature Tunneling Transistor
4,675,761	W. H. Ashbee, R. S. Kilen, A. J. Kirton, L. E. Rittenhouse, and J. A. Valent	Magnetic Head Positioning Apparatus and Method
4,675,764	H. Stock	Drive Mechanism for a Magnetic Head Carriage Assembly
4,675,807	D. A. Gourneau and S. W. Kerchberger	Multiple File Transfer to Streaming Device

4,675,812	R. C. Capowski and T. K. Zimmerman	Priority Circuit for Channel Subsystem Having Components with Diverse and Changing Requirement for System Resources
4,675,843	R. A. Vautier	Programmable Logic Controller
4,675,846	G. J. Jordy and J. M. Mosley	Random Access Memory